

Belirsiz İntegral - 2

1. $\int (x^2 + x + 1)^7 \cdot (2x + 1) dx$

aşağıdakilerden hangisine eşittir?

- A) $\frac{7}{6}(x^2 + x + 1)^6 + c$ B) $\frac{(x^2 + x + 1)^6}{6} + c$
C) $\frac{(x^2 + x + 1)^7}{7} + c$ D) $\frac{(x^2 + x + 1)^8}{8} + c$
E) $\frac{7(x^2 + x + 1)^8}{8} + c$

2. $\int \sqrt{x^3 - x} \cdot (3x^2 - 1) dx$

aşağıdakilerden hangisine eşittir?

- A) $\frac{(x^3 - x)^{\frac{3}{2}}}{3} + c$ B) $\frac{2(x^3 - x)^{\frac{3}{2}}}{3} + c$
C) $\frac{3(x^3 - x)^{\frac{3}{2}}}{2} + c$ D) $(x^3 - x)^{\frac{2}{3}} + c$
E) $\frac{3}{2}(x^3 - x)^{\frac{2}{3}} + c$

3. $\int (x - 1)^7 \cdot (x + 1)^7 \cdot x dx$

aşağıdakilerden hangisine eşittir?

- A) $(x^2 - 1)^8 + c$ B) $\frac{(x^2 - 1)^8}{8} + c$
C) $\frac{(x^2 - 1)^8}{16} + c$ D) $\frac{(x^2 + 1)^8}{8} + c$
E) $\frac{(x^2 + 1)^8}{16} + c$

4. $\int (x + 2)^3 \cdot (x^2 - 2x + 4)^3 \cdot x^2 dx$

aşağıdakilerden hangisine eşittir?

- A) $\frac{(x^3 - 8)^4}{6} + c$ B) $\frac{(x^3 - 8)^4}{12} + c$
C) $\frac{(x^3 + 8)^4}{4} + c$ D) $\frac{(x^3 + 8)^4}{6} + c$
E) $\frac{(x^3 + 8)^4}{12} + c$

5. $\int \frac{\sqrt{x+1} + \sqrt[3]{x+1}}{\sqrt[4]{x+1}} dx$

integraline $u = \sqrt[12]{x+1}$ dönüşümü yapıldığında aşağıdakilerden hangisine eşittir?

- A) $\frac{4}{5}u^{15} + \frac{12}{13}u^{13} + c$
B) $\frac{5}{4}u^{15} + \frac{12}{13}u^{13} + c$
C) $\frac{9}{10}u^{15} + \frac{12}{13}u^{13} + c$
D) $\frac{4}{5}u^{15} - \frac{12}{13}u^{13} + c$
E) $\frac{u^{15}}{15} + \frac{u^{13}}{13} + c$

6. $\int \sqrt[3]{2x+1} dx$

aşağıdakilerden hangisine eşittir?

- A) $(2x + 1)^{\frac{4}{3}} + c$ B) $\frac{1}{8}(2x + 1)^{\frac{4}{3}} + c$
C) $\frac{1}{4}(2x + 1)^{\frac{4}{3}} + c$ D) $\frac{3}{8}(2x + 1)^{\frac{4}{3}} + c$
E) $\frac{1}{2}(2x + 1)^{\frac{4}{3}} + c$

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7. $\int 18(3x + 7)^5 dx$

aşağıdakilerden hangisine eşittir?

- A) $(3x + 7)^5 + c$ B) $(3x + 7)^6 + c$
C) $\frac{(3x + 7)^6}{3} + c$ D) $\frac{(3x + 7)^6}{6} + c$
E) $2(3x + 7)^6 + c$

8. $\int \frac{(2\sqrt{x} + 3)^4}{\sqrt{x}} dx$

aşağıdakilerden hangisine eşittir?

- A) $\frac{(2\sqrt{x} + 3)^5}{5} + c$ B) $\frac{(2\sqrt{x} + 3)^5}{4} + c$
C) $\frac{(2\sqrt{x} + 3)^5}{2} + c$ D) $(2\sqrt{x} + 3)^5 + c$
E) $2(2\sqrt{x} + 3)^5 + c$

9. $\int 6(f(x) + 3)^2 \cdot f'(x) \cdot dx$

aşağıdakilerden hangisine eşittir?

- A) $f^3(x) + c$ B) $2f^3(x) + c$
C) $\frac{(f(x) + 3)^3}{2} + c$ D) $(f(x) + 3)^3 + c$
E) $2(f(x) + 3)^3 + c$

10. $\int \frac{2x + 5}{(x^2 + 5x + 2)^2} dx$

aşağıdakilerden hangisine eşittir?

- A) $-(x^2 + 5x + 2) + c$ B) $\frac{1}{(x^2 + 5x + 2)^2} + c$
C) $-\frac{1}{x^2 + 5x + 2} + c$ D) $\frac{1}{x^2 + 5x + 2} + c$
E) $-\frac{1}{(x^2 + 5x + 2)^2} + c$

11. $36 \int (x^4 + x^2)^8 \cdot (2x^3 + x) dx$

aşağıdakilerden hangisine eşittir?

- A) $\frac{(x^4 + x^2)^{10}}{5} + c$ B) $2(x^4 + x^2)^8 + c$
C) $(x^4 + x^2)^8 + c$ D) $(x^4 + x^2)^9 + c$
E) $2(x^4 + x^2)^9 + c$

12. $\int \sqrt{2x - 3} \cdot (4x + 5) dx$

integraline $u = \sqrt{2x - 3}$ dönüşümü yapıldığında aşağıdakilerden hangisine eşittir?

- A) $u^5 + 11u^3 + c$ B) $\frac{1}{5}u^5 + \frac{11}{3}u^3 + c$
C) $\frac{2}{5}u^5 + \frac{11}{2}u^3 + c$ D) $\frac{2}{5}u^5 + \frac{11}{3}u^3 + c$
E) $\frac{1}{5}u^5 + \frac{1}{3}u^3 + c$

